



Back Pain in Children — Identification of Causes and Protocols for Chiropractic Care

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Children are not just "little adults," they have unique problems which require specific evaluation, and special care.

Management of the child with back pain requires a careful and thorough evaluation and a specific plan of care is vital to a successful outcome. This article discusses specific causes of back pain in children, the use of appropriate case management and spinal adjusting protocols, and presents an algorithm to evaluate and differentiate causes of pediatric back pain.

Although spinal problems are not generally considered, by the community at large, to be common in childhood, they can sometimes herald a serious problem and must be thoroughly investigated.

Back pain in children can be due to many causes. The evaluation and management of childhood back pain is a specialized task and should be undertaken with great care to ensure that a serious problem is not masquerading as a relatively minor complaint. Symptoms of back pain in children can sometimes be difficult to interpret due to the inability of the doctor or parents to communicate effectively with the young patient, or because the child's symptoms do not immediately suggest a spinal problem to be the underlying cause.

Incidence of Back Pain in Children

Research studies on back pain in children have been minimal. This is likely because childhood back pain has not generally been considered to be a common problem or a cause of serious ill health. However, back pain in children has been the topic of an increasing number of epidemiological studies during the past decade and the results of the most significant studies are reviewed in this paper.

Prevalence studies in children have reported incidence rates varying between 7 and 51 percent. Although the methodology, age range and criteria for back pain has varied widely in these studies, there appears one strong theme, i.e., that back pain in children is a major public health issue. There is a great need for further studies to evaluate not only epidemiology, but also to evaluate treatment protocols and preventive measures for children with back pain. The most apparent fact, from studies of the pediatric population, is that many children experience back pain.

Risk Factors

The following risk factors have been identified in various studies:

- **Age** — The incidence of back pain increases with age. A significant increase in back pain incidence oc-

curred at the age of 12 years and over. In all age groups above 11 years, more than 50 percent of the subjects had experienced back pain at some time in their life.

- **Gender** — Females were more likely to experience back pain than males. A significant increase in back pain incidence in females was noted at 58.1 percent, compared with 43.2 percent for males.
- **Watching TV** — Children who watched television for extended pe-

riods were more likely to have back pain. Of those children who watched TV between 1-2 hours each day, 59.3 percent had experienced back pain. When the viewing time was increased to more than two hours each day, the incidence of back pain increased to 68.8 percent.

- **Sports** — The prevalence of back pain associated with sports was found to exceed 60 percent for participants of the following sports: volleyball (78.2 percent); climbing (68.7 percent); golf (64.8 percent) and basketball (62.6 percent).

In studying female gymnasts, Olsen identified that subjects with low back pain had significantly larger lumbar lordosis (41 degrees) than in those with no history of low back pain (35 degrees).

- **Previous back injury** — For children who had previously experienced back pain, there was a significant risk identified for future occurrence.
- **Sitting at school** — Trouslor's study also identified that 41.6 percent of the participants experienced back pain

while sitting in class; 30 percent within one hour, and 70 percent after sitting for longer than one hour.

Salminen, in a study of 1,503 school children, aged 14 years, found that low back pain was the third most common form of pain interfering with school work and leisure activities.

- **Carrying back packs** — On the issue of satchel carrying position, 68.6 percent of children had back pain when they carried their satchels by hand, compared with 53.7 percent who carried their satchels on the shoulder, and 45 percent when carried on their back. The specific incidence of location of back pain was identified as being lumbar 41 percent, thoracic 34 percent and cervical 26.5 percent.

Other Associated Factors


- **Disc degeneration** — Disc degeneration and spondylolytic symptoms were also noted as sources of lower back pain (LBP). However, not all cases of disc degeneration or spondy-

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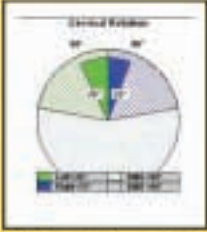
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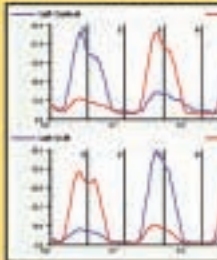


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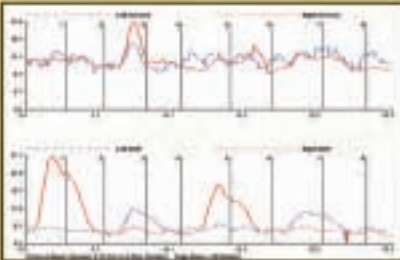
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